TEN, EASY STEPS FOR WELDING ALUMINIUM WITH YOUR BINZEL MIG TORCH.

ALUMINIUM WELDING, WITH A BINZEL TORCH, WILL PRODUCE THE BEST RESULTS BY FOLLOWING THESE 10 SIMPLE STEPS.

1. Remove the liner positioner nut from the adaptor block at the wire feed end of the torch cable: remove the gas nozzle, tip holder, gas diffuser and contact tip from the torch and the existing liner if fitted.

2. Carefully push the PTFE liner through the bicox cable until the end of the liner protrudes from the swan neck then withdraw the liner back into the swan neck.

3. Replace the contact tip holder, gas diffuser and contact tip: gently push the liner to seat it into the back of the contact tip holder. Replace the gas nozzle.

3.a For Push-Pull torches the liner should be gently pushed until it seats solidly inside the fitting at the back of the Push-Pull body.

4. At the wire feeder end of the torch cable, slide the brass nipple and 'O'-ring over the liner until they are located in the recess in the adaptor block and replace the liner retaining nut while maintaining gentle pressure against the liner to ensure it is in compression.

DO NOT CUT THE PTFE LINER YET!!

5. With a pair of long-nosed pliers, remove the steel inlet guide tube from the central adaptor installed in the front face of the welding machine.

6. Cut the brass support tube so that it is 3mm shorter than the steel inlet guide.

7. Slide the brass support tube over the liner and feed the liner, with the brass support tube fitted, into the inlet of the central adaptor. Lift the feed rollers of the wire feeder to enable the excess liner to pass through. Continue to feed through until the adaptor block is butted against the central adaptor, then tighten the hand nut. Cut the liner, using a sharp knife, so that it butts up to the feed rollers.

8. Reduce the wire hub tension by backing off the nut in the centre of the hub until friction is only enough to stop the wire spool from spinning freely

9. After confirming the wire feed roll is the correct size and profile* for the aluminium wire being used, back off the wire feed roll pressure screw until the feed roll no longer feeds the wire and re-tighten slightly. Too much pressure will deform the soft aluminium wire and cause the wire to jam in the contact tip.
*To help prevent wire deformation, a 'U' groove feed roller is better than a 'V' groove feed roller.

10. Aluminium welding requires a contact tip with a greater clearance than that used for steel. Special clearance contact tips are available for aluminium and are designed with the 'A' suffix. (eg 0.9A, 1.2A).

Following these procedures will reduce to a minimum, difficulties which can arise when setting up to weld aluminium.